ANALYTICA CHIMICA ACTA

An international journal devoted to all branches of analytical chemistry

(Full texts are incorporated in CJELSEVIER, a file in the Chemical Journals Online database available on STN International; Abstracted, indexed in: Aluminium Abstracts; Anal. Abstr.; Biol. Abstr.; BIOSIS; Chem. Abstr.; Curr. Contents Phys. Chem. Earth Sci.; Engineered Materials Abstracts; Excerpta Medica; Index Med.; Life Sci.; Mass Spectrum. Bull.; Material Business Alerts; Metals Abstracts; Sci. Citation Index)

VOL. 413 NOS. 1–2 CONTENTS May 18th, 2000

Publisher's Note 1

Environmental and food analysis

Analysis of poly(vinyl chloride) and other polymers in sediments and suspended matter of a coastal lagoon by pyrolysis-gas chromatography-mass spectrometry
D. Fabbri, D. Tartari and C. Trombini (Ravenna, Italy) 3

Development of analytical systems for the simultaneous determination of the speciation of arsenic [As(III), methylarsonic acid, dimethylarsinic acid, As(V)] and selenium [Se(IV), Se(VI)]
I. Ipolyi and P. Fodor (Budapest, Hungary) 13

Determination of total copper in white wine by stripping potentiometry utilising medium exchange
A.C. Clark (Wagga Wagga, Australia and Parkville, Australia) and G.R. Scollary (Wagga Wagga, Australia) 25

Determination of heavy metals and their speciation in lake sediments by flame atomic absorption spectrometry after a four-stage sequential extraction procedure
S. Tokalioğlu, Ş. Kartal and L. Elçi (Kayseri, Turkey) 33

Microwave-assisted sample preparation in sequential injection: spectrophotometric determination of magnesium, calcium and iron in food
C.C. Oliveira, R.P. Sartini (Araras, Brazil) and E.A.G. Zagatto (Piracicaba, Brazil) 41

Microwave-assisted extraction or saponification combined with microwave-assisted decomposition applied in pretreatment of soil or mussel samples for the determination of polychlorinated biphenyls
G. Xiong (Jiujiang, PR China), X. He and Z. Zhang (Guangzhou, PR China) 49

Solid-phase sodium bismuthate as an oxidant in flow injection analysis: determination of manganese in effluent streams
K. Kargosha (Tehran, Iran) and M. Noroozifar (Zahedan, Iran) 57

Immunoassay

Validation of a radioimmunoassay for the determination of total corticosterone in rat plasma
T.K.H. Pedersen, Å.M. Hansen, S.P. Lund and A.H. Garde (Copenhagen, Denmark) 63

Application of *p*-phenylenediamine as an electrochemical substrate in peroxidase-mediated voltammetric enzyme immunoassay
K. Jiao, W. Sun, S.-s. Zhang and G. Sun (Qingdao, PR China) 71

(Continued overleaf)

http://ChemWeb.com
The World Wide Club for the Chemical Community
http://chemweb.com/gateways/elsevier.html

CONTENTS direct

This journal is part of **ContentsDirect**, the ***free*** alerting service which sends tables of contents by e-mail for Elsevier Science books and journals. You can register for **ContentsDirect** online at: **www.elsevier.nl/locate/contentsdirect**

Competitive immunoassay method for 5-methyl-2′-deoxycytidine
I. Darwish (Assiut, Egypt), S. Emara (Ismailia, Egypt), H. Askal, N. El-Rabbat (Assiut, Egypt), K. Omura, K. Hirose, T. Akizawa (Osaka, Japan) and M. Yoshioka (Ismailia, Egypt and Osaka, Japan) 79

Nucleic acids
Spectrophotometric determination of nucleic acids using palladium(II) complex with 2-(5-bromo-2-pyridylazo)-5-diethylaminophenol
Y.-M. Hao and H.-X. Shen (Tianjin, PR China) 87

Enzymatic and kinetic methods
Visual determination of lead(II) by inhibition of alkaline phosphatase immobilized on polyurethane foam
I.A. Veselova and T.N. Shekhovtsova (Moscow, Russia) 95
Kinetic determination of acid phosphatase activity by double injection flow analysis with electrochemical detection
J. Castañón-Fernández, M.T. Fernández-Abedul and A. Costa-García (Asturias, Spain) 103
Determination of hemoglobin based on its enzymatic activity for the oxidation of o-phenylenediamine with hydrogen peroxide
K. Zhang, R. Cai (Wuhan, PR China), D. Chen (Carlsbad, CA, USA) and L. Mao (Wuhan, PR China) 109
Determination of riboflavin by the perturbation of active oxygen on a chemical oscillating reaction
Z. Ke, M. Wanhong, C. Ruxiu, L. Zhixin and G. Nanqin (Wuhan, PR China) 115

Capillary electrophoresis and chromatography
Determination of amitriptyline and nortriptyline in spiked plasma by capillary zone electrophoresis with β-cyclodextrin
S.-M. Wu, H.-L. Wu, W.-K. Ko and S.-H. Chen (Kaohsiung, Taiwan)) 125
Liquid chromatography — electrochemical detector for the determination of glucose in rat brain combined with in vivo microdialysis
G. Shi, J. Lu, F. Xu, H. Zhou, L. Jin (Shanghai, PR China) and J. Jin (Gifu, Japan) 131
Highly selective and sensitive determination of tricyclic antidepressants in human plasma using high-performance liquid chromatography with post-column tris(2,2′-bipyridyl) ruthenium(III) chemiluminescence detection
H. Yoshida, K. Hidaka, J. Ishida, K. Yoshikuni, H. Nohta and M. Yamaguchi (Fukuoka, Japan) 137
A study of the influence of the injection duration on the precision of concentration estimation in chromatography
R. Kilg and H.C. Smit (Amsterdam, The Netherlands) 147

Fluorescence and chemiluminescence
Determination of five polycyclic aromatic hydrocarbons in aqueous micellar media by fluorescence at room temperature
E. Lázaro, M.P. San Andrés and S. Vera (Madrid, Spain) 159
Highly sensitive spectrofluorimetric determination of ascorbic acid based on its enhancement effect on a mimetic enzyme-catalyzed reaction
Z. Liu, Q. Wang, L. Mao and R. Cai (Wuhan, PR China) 167
Analytical applications of chemiluminogenic reactions
L.P. Palilis and A.C. Calokerinos (Athens, Greece) 175

Laser-induced plasma spectrometry
Determination of Mn and Si in iron ore by laser-induced plasma spectroscopy
Q. Sun, M. Tran, B.W. Smith and J.D. Winefordner (Gainesville, FL, USA) 187

Inductively coupled plasma mass spectrometry
Determination of mercury compounds by capillary electrophoresis inductively coupled plasma mass spectrometry with microconcentric nebulization
T.-H. Lee and S.-J. Jiang (Kaohsiung, Taiwan) 197
Rapid determination of technetium-99 by electrothermal vaporization-inductively coupled plasma-mass spectrometry with sodium chlorate and nitric acid as modifiers
M. Song and T.U. Probst (Garching, Germany) 207

Plasma sources
Study on solvent-loading effect on inductively coupled plasma and microwave-induced plasma sources with a microliter nebulizer
M. Huang, H. Kojima (Tokyo, Japan), T. Shirasaki (Ibaraki, Japan), A. Hirabayashi and H. Koizumi (Tokyo, Japan) 217

Piezoelectric detection
Quartz crystal microbalance for L-leucine sensing based on growth of L-leucine crystals immobilized on a monolayer of 11-mercaptoundecanoic acid
H. Eun and Y. Umezawa (Tokyo, Japan) 223

Experimental design
Designing experiments to optimise and validate the adsorptive stripping voltammetric determination of nimesulide
S. Furlanetto, S. Orlandini (Firenze, Italy), G. Aldini (Milano, Italy), R. Gotti (Bologna, Italy), E. Dreassi (Siena, Italy) and S. Pinzauti (Firenze, Italy) 229

Membrane extraction

Theoretical and experimental study of palladium(II) extraction from hydrochloric acid solutions into Aliquat 336/PVC membranes
S.D. Kolev (Bundoora, Australia), Y. Sakai (Miyazaki, Japan), R.W. Cattrall (Bundoora, Australia), R. Paimin (Melbourne, Australia) and I.D. Potter (Bundoora, Australia) 241

Author Index 247

Calendar of forthcoming meetings N1